

Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Rec'd PCT/71 08 FEB 2005
PCT/JP2003/009978

Applicant's or agent's file reference 03-059-PCT	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/JP2003/009978	International filing date (day/month/year) 06 August 2003 (06.08.2003)	Priority date (day/month/year) 09 August 2002 (09.08.2002)
International Patent Classification (IPC) or national classification and IPC A61K 35/78, A61P 3/04, 3/10, 43/00, A23L1/30, A23K1/16		
Applicant TAKARA BIO INC.		

1.	This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2.	This REPORT consists of a total of <u>4</u> sheets, including this cover sheet. <input type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT). These annexes consist of a total of _____ sheets.
3.	This report contains indications relating to the following items: I <input checked="" type="checkbox"/> Basis of the report II <input type="checkbox"/> Priority III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability IV <input type="checkbox"/> Lack of unity of invention V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement VI <input type="checkbox"/> Certain documents cited VII <input type="checkbox"/> Certain defects in the international application VIII <input type="checkbox"/> Certain observations on the international application

Date of submission of the demand 23 October 2003 (23.10.2003)	Date of completion of this report 26 February 2004 (26.02.2004)
Name and mailing address of the IPEA/JP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/JP2003/009978

I. Basis of the report

1. With regard to the elements of the international application:*

- ☒ the international application as originally filed
- ☐ the description:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☐ the claims:
pages _____, as originally filed
pages _____, as amended (together with any statement under Article 19
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☐ the drawings:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☐ the sequence listing part of the description:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/fig _____

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/JP 03/09978

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims		YES
	Claims	1-10	NO
Inventive step (IS)	Claims		YES
	Claims	1-10	NO
Industrial applicability (IA)	Claims	1-10	YES
	Claims		NO

2. Citations and explanations

- Document 1: British J. Nutrition, 1999, Vol. 81, No. 3, pp. 203-209
- Document 2: JP 2002-80363 A (Kao Corp.), 19 March 2002; paragraphs [0001] and [0012]
- Document 3: JP 2002-138045 A (Ichimaru Pharcos Co., Ltd.), 14 May 2002 (Family: none)
- Document 4: JP 10-295325 A (Katsuharu Nagamitsu), 10 November 1998; claim 4 (Family: none)
- Document 5: JP 9-121810 A (YK Hida Aloe), 13 May 1997 (Family: none)
- Document 6: Keizo Sekiya, "Ninjin ni fukumareru zenku shibou saibou no bunka chousetsu seibun", Shokuhin Kenkyu Seika Joho, 1997, No. 9, pp. 24-25
- Document 7: JP 7-322847 A (Fujimaru Shokuhin KK), 12 December 1995; Table 1 (Family: none)
- Document 8: J. Agric. Food Chem., 2000, Vol. 48, No. 3, pp. 849-852, Table 1

Documents 1-8 above are cited in the international search report.

Document 1 discloses the fact that coriander, which is a plant of the Umbellifera family, has an insulin-like

action; document 2 discloses the fact that parsley isoflavone is useful for preventing and improving diabetes, hyperglycaemia, hyperlipidaemia and insulin resistance; document 3 discloses the fact that an extract of caraway, a plant of the Umbellifera family, induces differentiation of precursor adipocytes; documents 4 and 5 disclose the fact that *Angelica keiskei* has a prophylactic or therapeutic action on elevation of blood glucose; document 6 discloses the fact that carotene from carrot, a plant of the Umbellifera family, acts to induces differentiation of precursor adipocytes; document 7 discloses the fact that *Angelica keiskei* is rich in carotene; and document 8 discloses the fact that celery and parsley have an insulin-like action. Therefore, the inventions set forth in claims 1-10 are substantially disclosed in these documents. In addition, from the disclosure in document 7 that *Angelica keiskei* contains carotene and the disclosure in document 6 of the action of carotene in inducing the differentiation of precursor adipocytes, discovery of the same action in *Angelica keiskei*, thereby constituting the inventions set forth in claims 1-6, 9 and 10, would be obvious to a person skilled in the art.

The inventions set forth in claims 1-10 are industrially applicable.

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